

CLAIMS

1. An image processing device for processing image data using image data generated by an image generating device, and image generation
5 record information that is associated with the image data and that includes at least information relating to shooting conditions at the time of generation of the image data, the image processing device comprising:

an image quality adjuster that, if the image generation record information contains light source information relating to color shift of a light
10 source at the time of generation of the image data, is able to execute white balance adjustment process of the image data based on color of the light source obtained using the light source information.

2. An image processing device according to claim 1, wherein the
15 image quality adjuster adjusts magnitude of the white balance adjustment process based on hue of the light source.

3. An image processing device according to claim 2, wherein the white balance adjustment process includes:

20 (i) a process of analyzing pixel values of a par of pixels making up the image data to determine an amount of color cast indicating deviation of hue of the image data from gray;

(ii) a process of determining an amount of the white balance adjustment process based on the amount of color cast; and

25 (iii) a process of executing the white balance adjustment process in accordance with the determined amount;

and wherein the magnitude of white balance adjustment process is adjusted by means of adjusting, based on the hue of the light source, a pre-selected processing parameter used in at least one of the processes (i) and (ii).

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4. An image processing device according to claim 3 wherein the image quality adjuster establishes, as a condition for selecting pixels for the

analysis from among all pixels making up the image data, a condition whereby pixels having a higher saturation value are selected for the analysis as a pixel hue comes closer to the hue of the light source, in order to adjust the magnitude of white balance adjustment process.

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5. An image processing device according to claim 3 or 4 wherein the image quality adjuster subjects a process parameter representing a proportion of an amount of white balance adjustment process to an amount of color cast, to adjustment in such a way that the parameter is greater as the hue of the light source comes closer to a shifted hue in the image data, in order to adjust the magnitude of white balance adjustment process.

6. An image processing device according to any one of claims 3 to 5 wherein the image quality adjuster selects for the analysis pixels approximating achromatic color in the image data.

7. An image processing device according to any one of claims 3 to 6 wherein the image quality adjuster selects for the analysis pixels excluding pixels of predetermined hue.

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8. An image processing device according to any one of claims 1 to 7 wherein the image quality adjuster is able to determine whether the color balance of the image data was adjusted according to user instruction at the time of generation of the image data, and

25 if determined to have been adjusted according to user instruction, the image quality adjuster executes the white balance adjustment process using a lower magnitude than if the determination had not been made.

9. An output device for outputting an image using image data generated by an image generating device, and image generation record information that is associated with the image data and that includes at least

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information relating to shooting conditions at the time of generation of the image data, the output device comprising:

an image quality adjuster that, if the image generation record information contains light source information relating to color shift of a light source at the time of generation of the image data, is able to execute white balance adjustment process of the image data based on color of the light source obtained using the light source information; and

an image output unit for outputting an image according to the image quality-adjusted image data.

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10. An image processing method for processing image data using image data generated by an image generating device, and image generation record information that is associated with the image data and that includes at least information relating to shooting conditions at the time of generation of the image data, the method comprising the step of:

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if the image generation record information contains light source information relating to color shift of a light source at the time of generation of the image data, executing white balance adjustment process of the image data based on color of the light source obtained using the light source information.

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11. A computer program for causing a computer to execute processing of image data using image data generated by an image generating device, and image generation record information that is associated with the image data and that includes at least information relating to shooting conditions at the time of generation of the image data,

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the computer program causing a computer to execute a function whereby, if the image generation record information contains light source information relating to color shift of a light source at the time of generation of the image data, is able to execute white balance adjustment process of the image data based on color of the light source obtained using the light source information.

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12. A computer-readable recording medium having recorded thereon the computer program of claim 11.